

MAY 30 2006



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To: Tod T. Van Roy Patent Examiner @ USPTO		PAX (571) 273-8300	
Subject Response to 2 <sup>nd</sup> office Action / Telephone conversation Appl: 10/762,980	Date 5-30-06	# of Pages incl. Cover Page 3	

Dear Mr. Van Roy

Thank you for your communication  
mailed 03-20-2006 re: Appl 10/762,980

I would like to set-up a telephone  
conversation with you regarding this  
matter. I have prepared the draft  
of my response, but do not want officially  
submit it untill I have a chance  
to discuss the matter over the phone  
with you to further understand the  
issue. Please call @ numbers above.

Sincerely,

Peter Vitruk

Luxarcare LLC, 16932 Wood-Red Rd NE, Ste A101, Woodinville, WA 98072

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02

Application/Control Number 10/762,980

Art Unit 2828

Response to Office Action 03/20/2006

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05-30-2006

Tod T. Van Roy  
Patent Examiner  
T: 571-272-8447, F: 571-273-8300  
USPTO*This is the draft  
Peter Vitruk  
5-30-06*Re: Application/Control Number 10/762,980

Dear Mr. Van Roy,

Thank you for your communication mailed 03-20-2006. Please kindly consider our response to your communication.

**Re: Response to Arguments:** We strongly and respectfully agree with you: "Sukhman device requires ... side-plate heat-sinks that are not found in the current application". Indeed, this feature is the essence of our invention. Our invention does not require side-plate heat-sinks on the external surface of the laser tube. Our Claim 1 specifically avoids any reference to any side-plate heat-sinks since the tube is directly cooled by the cooling air flow.

We would very respectfully appreciate if you would kindly modify our Claim 1 in order to overcome perceived problem with this Claim 1, if the further following reasons and arguments below are not sufficient to allow Claim 1 as is. Please reach Peter Vitruk at tel: 1-206-660-9239 between 9 am and 5 pm Pacific Time to discuss how the claim can be adjusted.

**Re: Claims rejection under 35 USC 103(a) as unpatentable over Sukhman et al (US 5894493).** We very respectfully disagree with rejecting Claim 1 for the following reasons.

Our Claim 1, namely its last paragraph, includes the wording describing the essence of the invention, i.e. "... tube is placed inside the laser assembly ... allowing for cooling air ... to flow ... over the external surface of the tube ..." This is a crucial new feature introduced by our invention - external surface of the tube is directly exposed to the flow of cooling air.

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On the contrary, the external surface of the tube in Sukhman invention is covered on all four sides. The air is prevented from flowing "over the external surface of the tube" in Sukhman invention, in which the side-plates are serving as heat-sinks to remove the heat from the laser tube.

Our invention **does not** require side-plate heat-sinks placed on the sides of the laser tube. Sukhman invention **does** require such endplates serving as heat-sinks in order to cool two (out of four) sides of the laser tube. The air flow in our invention **does** directly cool all four external sides of the laser tube. The air flow in Sukhman invention **does not** cool the tube directly, it cools the heat-sinks which, in their turn, cool the two (out of four) sides of the laser tube.

Like we have said in our first response, until our invention it was unthinkable and non-obvious for one of ordinary skill in the art to eliminate the heat-sinks from RF excited laser assembly design. We've made this non-obvious step of eliminating the heat-sinks on the sides of the laser tube and at the same time exposing all four sides of RF excited laser tube to forced air flow. By doing so we have both 1) achieved adequate heat transfer away from laser tube even without heat-sinks, and 2) eliminated laser tube mechanical deformations caused by heat-sinks.

Based on the reasons above, we very kindly and respectfully ask to allow our Claim 1.

Claims 2, 4, 5, 6 and 8 are all dependent on independent Claim 1. Therefore we very respectfully ask to allow Claims 2, 4, 5, 6 and 8.

We respectfully agree that square bore laser channel is obvious in view of Hongo et. al. (US 4875218) and, therefore, our Claim 3 cannot stand as an independent claim. However, our Claim 3 is dependent on independent Claim 1. Therefore we very respectfully ask to allow Claim 3.

We respectfully agree that using multiple electrode pairs is obvious in view of Hoag et. al. (US 4534032) and, therefore, our Claim 7 cannot stand as an independent claim. However, our Claim 7 is dependent on independent Claim 1. Therefore we very respectfully ask to allow Claim 7.

Very respectfully,

Peter Vitruk

and

Paul Diaz